

**ARIZONA GAME AND FISH DEPARTMENT
HERITAGE DATA MANAGEMENT SYSTEM**

Plant Abstract

Element Code: PDSOL0Z180

Data Sensitivity: No

CLASSIFICATION, NOMENCLATURE, DESCRIPTION, RANGE

NAME: *Solanum lumholtzianum* Bartl.

COMMON NAME: Lumholtz Nightshade, Sonoran Nightshade, Mala Mujer

SYNONYMS:

FAMILY: Solanaceae

AUTHOR, PLACE OF PUBLICATION: H.H. Bartlett, Proc. Amer. Acad. Arts Sci. 44: 629. 1909.

TYPE LOCALITY: Mexico: Sonora: La Tinaja, mountains, 3700 feet.

TYPE SPECIMEN: HT: GH-77505. C.V. Hartman 246, 19 November 1890.

TAXONOMIC UNIQUENESS: The genus *Solanum* contains approximately 1500 species (Hickman 1993); 102 species in North America (USDA, NRCS 2004). Fifteen species of *Solanum* are recognized by Lehr (1978) as occurring in Arizona.

DESCRIPTION: An erect annual herb with prickly, divergent branches 30-80 cm (12-32 in) tall, with gland tipped hairs among the spines. Spines yellowish with black at the base, 3-15 mm long, stiff. Leaves broadly ovate, cleft into narrow pointed lobes (twice divided into lobes and the lobes divided again), 5-13 cm (2-5 in) long, 3-8 cm (1.2-3.2 in) wide, dark green with golden spines. Inflorescence 6-10 flowered, 5-12 cm (2-5 in) long; corolla yellow, stellate, lobes ovate or narrowly deltoid; anthers of three sizes, terminally incurved, and occasionally tinged with purple. Fruits are berry-like, 8-12 mm wide, reddish, developing scattered, and stout prickles much exceeding those of the stem among many shorter, finer ones. Seeds are kidney-shaped, dark brown, plump, radially ridged, 3 mm long.

AIDS TO IDENTIFICATION: *S. lumholtzianum* differs from *S. grayi* in flavonoid chemistry, and allozyme genotype, adding to the many morphological distinctions; the finer cauline prickles, the more dissected leaves, the anthers of three sizes, the ovoid, fruiting calyx, and the larger seeds (Whalen 1979). *S. lumholtzianum* has yellow flowers, *S. grayi* has white flowers.

ILLUSTRATIONS: Color Photo (Rickett 1970: Pl. 164).

Line drawings of seed and seedlings of genus (USDA, Forest Service, in http://plants.usda.gov/cgi_bin/plant_search.cgi)

TOTAL RANGE: Southern Arizona and Northern Mexico (at least Sonora).

RANGE WITHIN ARIZONA: From Arivaca, and San Luis mountains in Pima County, and Patagonia, and the Atascosa and Santa Rita mountains in Santa Cruz County.

SPECIES BIOLOGY AND POPULATION TRENDS

GROWTH FORM: Herbaceous annual.

PHENOLOGY: Flowers from July - October.

BIOLOGY: This species has been reported to hybridize with *S. grayi* on one occasion (Martin et al 1998).

HABITAT: Washes, and low ground near wet depressions and along streambanks. Often is found in disturbed, weedy areas, disturbed roadsides, and disturbed soils above streams.

ELEVATION: 3,000 to about 4,600 feet (900-1380 m). NatureServe (2004) reports from at least 164-3,935 feet (50-1200 m).

EXPOSURE:

SUBSTRATE: Sandy or gravelly soils.

PLANT COMMUNITY: Desert grassland; mesquite grassland. Associated plant species may include: *Cnidoscolus angustidens* (mala mujer), *Gutierrezia* sp., *Macrosiphonia brachysiphon* (Huachuca rocktrumpet), *Mimosa dysocarpa* (velvetpod mimosa), *Prosopis velutina* (velvet mesquite), *Quercus emoryi* (Emory's oak), and *Q. oblongifolia* (Mexican blue oak). In Sonora, Mexico, found in foothills and open areas in tropical deciduous forest.

POPULATION TRENDS: Unknown.

SPECIES PROTECTION AND CONSERVATION

ENDANGERED SPECIES ACT STATUS:	None
STATE STATUS:	None
OTHER STATUS:	Forest Service Sensitive (USDA, FS Region 3 1999).

MANAGEMENT FACTORS:

PROTECTIVE MEASURES TAKEN:**SUGGESTED PROJECTS:**

LAND MANAGEMENT/OWNERSHIP: FWS - Buenos Aires National Wildlife Refuge;
USFS - Coronado National Forest; State Land Department; TNC Patagonia-Sonoita Creek
Preserve; Private.

SOURCES OF FURTHER INFORMATION**REFERENCES:**

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MAJOR KNOWLEDGEABLE INDIVIDUALS:

T.R. Van Devender - Arizona-Sonora Desert Museum.

ADDITIONAL INFORMATION:

Revised: 1999-11-30 (LBK)
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